

REPLACEMENT DRAWINGS

Please replace the drawings presently on file with the attached replacement drawings.
The replacement drawings are merely a cleaner version of the previously filed drawings.

REMARKS

Favorable reconsideration is respectfully requested.

The claims are 1 to 4.

With regard to the requirement for new corrected drawings, a cleaner and clearer copy of the previously filed drawings are submitted herewith. Attached Material 1 is an expanded version of Fig. 3 and is presented for the Examiner's convenience.

The rejection of claims 1 and 2 as anticipated by Morgan et al. (WO 03/038107 A2) is respectfully traversed.

Claims 1 and 2 have been amended to recite a pharmaceutical composition which comprises an antitumor-effective amount of 1,5-D-anhydrofructose and/or ascopyrone as antitumor component(s), and a preparation carrier. On the other hand, Morgan et al. relates to an improved process producing ascopyrone P but no mention of a pharmaceutical composition containing an antitumor-effective amount of the claimed components as well a preparation carrier. The latter is disclosed at page 4, line 17 of the present specification.

Accordingly, the rejection of claims 1 and 2 as anticipated by Morgan is untenable and should be withdrawn.

With regard to the rejection of claims 3 and 4 for failing to recite essential steps, above amended claims 3 and 4 now recite the steps required by the rejection, i.e. a concluding step that reiterates the preamble.

Claims 1 to 4 have been rejected under 35 U.S.C. 103(a) as being unpatentable over the above Morgan et al. reference in view of NCI-Antioxidant Cancer Prevention: Fact Sheet (1-08-2003).

This rejection is respectfully traversed.

Morgan et al. (WO 03/038107 A2) disclose that ascopyrone P functions as a good antioxidant and antimicrobial agent.

However, Morgan et al. fail to disclose that ascopyrone P functions as an antitumor agent.

NCI-Antioxidant Cancer Prevention: Fact Sheet (1-08-2003) discloses that cancer is induced by the attack of a normal cell by a free radical and that the erasure of the free radical by an

antioxidant prevents the canceration of the normal cell. However, this reference is silent about the effect of treating cancer.

At present, the number of antioxidants which show an antitumor effect by themselves is very limited and it is known that most antioxidants do not show an antitumor effect. This is apparent from applicants' experimental data (please refer to attached Materials 2 and 3).

The administration of an antioxidant to a cancer patient is aimed at suppressing the side-effects of an anticancer drug and it is well known that an antioxidant is not administered as an anticancer drug.

It has been confirmed from applicants' experimental data that APP has an antioxidant effect and also an antitumor effect by itself (refer to attached Materials 2 and 3). But this is applicants' own discovery.

Consequently, it is rare that an antioxidant functions as an antitumor agent, and the effect of the present invention that APP, known as an antioxidant, has an antitumor effect is not at all obvious.

Further, the NCI-Antioxidant Cancer Prevention Fact Sheet itself, at page 1, paragraph 2, points out that while there is some evidence that antioxidants may slow or possibly prevent development of cancer, recent large-scale randomized clinical trials have reached inconsistent conclusions. Therefore, there is no reasonable basis on which to conclude that administration of an antioxidant in particular, the presently recited one, would in any way inhibit growth or metastasis of tumors.

For the foregoing reasons, the rejection on prior art is untenable and should be withdrawn.

If the Examiner has any comments or proposals for expediting prosecution, please contact undersigned at the telephone number below.

Respectfully submitted,

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